

METHOD OF IMPROVING A RESOLUTION OF CONTACT HOLE PATTERNS BY UTILIZING ALTERNATE PHASE SHIFT PRINCIPLE

Abstract

A method of forming a plurality of isolated and closed patterns arranged in an array in a photoresist layer. A phase shift mask is provided. A plurality of first phase shift transparent regions, a plurality of second phase shift transparent regions, and a non-phase shift region are included on the phase shift mask. The first phase shift transparent regions and the second phase shift transparent regions are regularly interlaced in an array. Each of the first phase shift transparent regions and each of the second phase shift transparent regions are separated by the non-phase shift region. An exposure process is performed to form the closed patterns corresponding to the first phase shift transparent regions and the second phase shift transparent regions in the photoresist layer.